

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of

Telephone Company-Cable Television
Cross Ownership Rules,
Sections 63.54-63.58

and

Amendments of Parts 32, 36, 61, 64,
and 69 of the Commission's Rules to
Establish and Implement Regulatory
Procedures for Video Dialtone
Service

CC Docket No. 87-266

RM - 8221

**COMMENTS OF THE
COMPAQ COMPUTER CORPORATION**

Compaq Computer Corporation ("Compaq") files these comments in response to the Third Further Notice of Proposed Rulemaking in the above-captioned proceeding.¹

¹ Telephone Company-Cable Television Cross Ownership Rules, Sections 63.54-63.58 and Amendments of Parts 32, 36, 61, 64, and 69 of the Commission's Rules to Establish and Implement Regulatory Procedures for Video Dialtone Service, Memorandum Opinion and Order on Reconsideration and Third Further Notice of Proposed Rulemaking, CC Docket No. 87-266, RM-8221, FCC 94-269 (released Nov. 7, 1994) ("Notice").

Compaq is one of the largest manufacturers of personal computers and personal computer systems in the world today, with 1993 sales of \$7.2 billion. Compaq's 1993 after-tax profits were \$462 million, making it the most profitable computer company in the United States. At the present time, some Compaq computer products are equipped with television tuner boards that enable the monitor to act as a television receiver. As the convergence among personal computers, cable television, and telephony continues, Compaq anticipates that its products increasingly will be used in conjunction with video-based information transported over cable and telephone systems.

The Commission seeks comment regarding the use of all-digital transmission methods by video dialtone providers.² In particular, it requests comment about the digital video dialtone proposal submitted by GTE.³ As described by the Commission, "GTE's proposal requires end user subscribers to purchase or rent a set-top converter, both because the converter is needed to view compressed digital video signals on today's televisions and because some channels may be encrypted."⁴ GTE's application indicates that it will provide set-top

² Id. ¶¶ 269-70.

³ GTE Section 214 Application, File No. W-P-C-6955 (May 24, 1994).

⁴ Notice ¶ 269.

converters as unregulated customer premises equipment ("CPE") and will permit subscribers to obtain converters from other sources.⁵

The GTE proposal demonstrates that it is possible to implement digital technology in a manner that is consistent with the Commission's CPE rules, which require that customer premises equipment be provided on an unbundled, competitive basis. The benefits of this approach are substantial. Over time, significant new functionality is likely to reside in the set-top box (or similar equipment). Providing this equipment on an unbundled, competitive basis will foster innovation while driving prices towards cost. This aspect of GTE's proposal thus provides a model for those local exchange carriers that choose to implement digital-based video dialtone service.⁶

The regulatory status of the set-top box used in conjunction with video dialtone service must not be seen in isolation. In the Cable Compatibility proceeding,⁷ the Commission is taking steps to promote the competitive provisioning of "set-back boxes" that can be used in conjunction with cable service. Like GTE's proposed video dialtone set-top box, the cable set-back box

⁵ GTE Section 214 Application at 9. We assume that GTE intends to comply with all of the Commission's pro-competitive CPE rules such as Part 68, the Joint Cost Order, and the network disclosure rules.

⁶ As the Commission recognizes, digital transmission technology can significantly increase system capacity. Market forces, therefore, are likely to lead to widespread deployment of this technology. Consequently, there is no need for the Commission to mandate the use of digital technology for all video dialtone systems.

⁷ Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992, 9 FCC Rcd 1981 (1994).

will provide both security-related decryption functions and other non-security-related features.⁸ The Commission has required that security functions (which must be provided by the cable system) be offered separately from non-security functions (which can be provided competitively).⁹ This is intended to allow competition in the market for set-back devices, which will benefit consumers by promoting the availability of a rich array of non-security features.

In its comments in the Cable Compatibility proceeding, Compaq strongly supported the separation of security-related and non-security-related functions in the cable set-back box.¹⁰ As Compaq explained, the most effective way to achieve such a separation would be to require the cable system operator to provide security-related and non-security-related functionality in two separate pieces of equipment. Compaq further proposed that, if the Commission chooses to allow cable system operators to bundle security and non-security functions in the same "box," it should require the cable operators to provide users with the option of acquiring a security-only module.

The regulatory regime that the Commission adopts for CPE used in conjunction with video dialtone services should be consistent with the regulatory regime that it adopts for in-home equipment used in conjunction with cable service. Compaq therefore urges the Commission to require that any set-top box deployed

⁸ Id. at 1988.

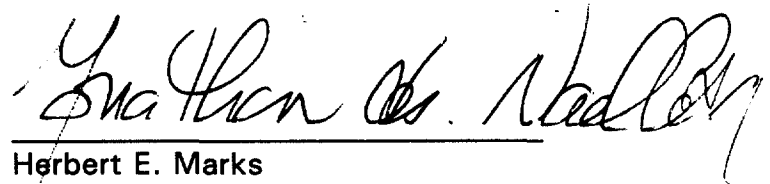
⁹ Id. at 1988-89.

¹⁰ A copy of Compaq's comments are appended to this pleading.

in the video dialtone environment be provided on an unbundled, non-regulated basis. Such equipment, moreover, should be subject to the same requirements regarding the separation of security and non-security functions as the set-back box that it to be deployed pursuant to the Commission's Cable Compatibility rules.

By adopting consistent, pro-competitive rules in the Video Dialtone and Cable Compatibility dockets, the Commission will ensure that consumers of multi-channel video programming service -- whether cable subscribers or video dialtone customers -- enjoy the benefits that result from the competitive provisioning of customer equipment.

Respectfully submitted,



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December 16, 1994

**Before the
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20544**

RECEIVED
JUL 16 1994
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20544

In the Matter of

Implementation of Section 17
of the Cable Television Consumer Protection
and Competition Act of 1992

Compatibility Between Cable Systems and
Consumer Electronics Products

**COMMENTS ON RECONSIDERATION
OF THE
COMPAQ COMPUTER CORPORATION**

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INTRODUCTION AND STATEMENT OF INTEREST

Compaq Computer Corporation ("Compaq") files these comments in response to the petitions for reconsideration of the Commission's Report and Order in the above-captioned proceeding.¹

Compaq is the third largest manufacturer of personal computer and personal computer systems in the world today, with 1993 sales of \$7.2 billion. Compaq's 1993 after-tax profits were \$462 million, making it the most profitable computer company in the United States. At the present time, some Compaq products are equipped with television tuner boards that enable the computer monitor to act as a television receiver. As the convergence among consumer electronics, television, and telephony continues, Compaq anticipates that its products increasingly will be used in conjunction with video-based information transported over cable and telephone systems.

In the Cable Compatibility Order, the Commission -- acting pursuant to the authority contained in Section 17 of the Cable Act of 1992² -- established regulations designed to allow cable subscribers "to utilize [consumer electronics] equipment offered by a variety of suppliers, including the cable system operator, in a competitive market."³ The regulations

¹ 9 FCC Rcd 1981 (1994) ("Cable Compatibility Order" or "Order").

² Cable Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, 106 Stat. 1460 (1992) § 17 (codified at 47 U.S.C. § 554A).

³ Cable Compatibility Order, 9 FCC Rcd at 1982.

carefully balance the Commission's long-standing commitment to competition in the communications equipment market with the "need to prevent theft of cable service."⁴

The centerpiece of the Commission's regulatory regime is the requirement, contained in paragraphs 41 and 42 of the Order, that the cable and consumer electronics industries jointly develop a "Decoder Interface" that will provide a means of connecting the cable transmission network to consumer electronics equipment located at the subscriber's premises. The Order provides that the Decoder Interface must have "the capability to separate signal access control [i.e., security] functions from other functions."⁵

Under the Commission's plan, security functions (such as signal descrambling) will be performed by a Decoder Module. The cable systems are to be the sole source for this equipment, which they are to provide to subscribers at no extra charge. In effect, the Decoder Module will be part of the cable system's transmission network. At the same time, the adoption of the Decoder Interface will allow equipment-based non-security functions -- such as the provision of on-screen directories -- to be provided competitively. As the Commission explained, these functions will be made available "through new products offered by retail vendors, or [will] be

⁴ Id. at 1981.

⁵ Id. at 1988.

incorporated into TV receivers and VCRs, thereby promoting competition in the market for equipment used to receive cable service."⁶

The petitioners seek reconsideration or clarification of numerous aspects of the Cable Compatibility Order -- including the Commission's decision regarding the functions that can be provided by the Decoder Module. The Commission's disposition of these petitions will establish important precedents. Compaq urges the Commission to resolve these issues in a manner that will maximize the extent to which consumers will be able to enjoy the benefits of competition in the consumer electronics market. In particular, the Commission should carefully limit any grant of authority to cable systems to bundle cable service (including the Decoder Module) with competitively provided consumer electronics equipment. To the extent such bundling is allowed, the Commission should adopt appropriate safeguards to prevent anticompetitive abuses.

I. THE COMMISSION SHOULD NOT RETREAT FROM ITS COMMITMENT TO PROMOTE COMPETITION IN THE CONSUMER ELECTRONICS EQUIPMENT MARKET.

In the Order, the Commission recognized the benefits of promoting competition in the market for consumer electronics equipment used in conjunction with cable service. "Opening these markets to competitive equipment providers," the Commission stated, "will give product

⁶ Id. at 1988-89.

developers and manufacturers, as well as cable systems operators, the ability and incentive to introduce new products and to respond to consumer demand. In return," the Commission added, "consumers will have greater access to technology with new features and functions."⁷

Preserving a competitive market for consumer electronics equipment can be difficult in a situation, such as the present one, in which that equipment is interconnected with transmission facilities that are not subject to effective competition. In that circumstance, the provider of the transmission facility (in this case the cable system operator) has the incentive and ability to leverage its market power by "bundling" the transmission service with consumer electronics equipment. Such bundling deprives consumers of the ability to choose the electronics equipment that best meets their needs, and extends the boundary of the cable operator's non-competitive offering.

The adverse effects of such bundling are clearly felt in the market for traditional television receivers and video cassette recorders. However, the competitive concerns raised by cable system bundling extend beyond these products. Today, many personal computers contain television tuner boards that allow them to function as TV receivers. Bundling therefore impairs the ability of computer manufacturers, such as Compaq, to provide the features and functions that best meet cable subscribers' needs.

⁷ Id. at 1982.

The importance of unbundling cable transmission from in-home equipment that can be competitively provided will increase over time. In the coming years, cable systems are likely to radically alter their operation -- transforming themselves from one-way conduits of packaged video entertainment into interactive "full service networks" providing subscribers with access to a wide range of multimedia services. Increasingly, in-home equipment will have to operate as "intelligent gateways," providing consumers with the ability to access, search, and interact with the services carried over cable systems. Personal computers are uniquely suited for this function. In order to ensure that cable subscribers will be able to enjoy the full benefits of a competitive consumer electronics marketplace, the Commission should take this opportunity to establish a clear line of demarcation between the cable network and in-home equipment that is to be offered competitively.

The Commission's experience in the area of customer premises equipment ("CPE") used in conjunction with regulated telephone service is highly relevant. For many years, regulated common carriers were able to force consumers to purchase carrier-provided CPE along with the carrier's transmission service. Today, however, the Commission's Unbundling Rule⁸ requires carriers to offer transmission service separately from CPE. As the Commission just recently observed, its unbundling policy "has benefitted . . .

⁸ 47 C.F.R. § 64.702(e).

users in numerous ways. The resulting increased competition among manufacturers has driven improvement in equipment quality, lowered CPE prices, and improved the performance of user's . . . communications networks. These policies, " the Commission further noted, "have also created new job opportunities in several related sectors of the economy."⁹

To be sure, the structure of the cable market is not identical to the telephone market. For example, all telecommunications CPE -- whether provided by a communications common carrier or an independent vendor -- must be provided on a non-regulated basis.¹⁰ In contrast, in-home equipment provided by a cable system operator is subject to regulation.¹¹ Moreover, because of the need to preserve the security of their programming, cable systems are able to provide in-home "descramblers" as part of their transmission network. However, the basic policies that have guided the Commission in the telephony context -- the clear demarcation between the non-competitively provided transmission service and

⁹ NYNEX Telephone Companies Tariff FCC No. 1, Memorandum Opinion and Order, 9 FCC Rcd 1608 (1994).

¹⁰ See Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), 77 F.C.C.2d 384, 438-47, on recon., 84 F.C.C.2d 50 (1980).

¹¹ See 47 U.S.C. §543(b)(3).

competitively provided subscriber equipment, and the prohibition against bundling the two -- are applicable in the cable context.¹²

II. THE COMMISSION SHOULD MAINTAIN ITS DECISION TO REQUIRE CABLE SYSTEMS TO UNBUNDLE THE DECODER MODULE FROM NON-SECURITY-RELATED IN-HOME EQUIPMENT

The extent to which cable systems will be allowed to bundle cable transmission service with consumer electronics is squarely presented by the petitions for reconsideration and clarification filed by the National Cable Television Association ("NCTA") and the Consumer Electronics Group of the Electronic Industries Association ("EIA/CEG"). Both of these parties

¹² As Representative Edward Markey, Chairman of Communications and Finance Subcommittee of the House Energy and Commerce Committee, recently observed:

[T]here are regulations governing the telephone industry that require the unbundling of customer premises equipment. . . . Unbundling of [this] equipment . . . allowed for a flowering of manufacturing of telephone equipment for the home and the business. It separated product from service and fostered consumer choice and competition. The cable industry does not have such unbundling rules today. Both industries are converging. As both industries upgrade their networks to offer 200 or 300 or 500 or an infinite number of channels, we need to discuss how we will treat this set-top box that will be in every home and business in the United States, using the telephone company model for customer premises equipment.

Statement of Representative Edward Markey, Hearing on Interoperability, House Subcommittee on Commerce and Finance, February 1, 1994.

seek clarification of Paragraph 42 of the Cable Compatibility Order, which establishes regulations governing the Decoder Interface.

In Paragraph 42, the Commission stated that "the Decoder Interface . . . must allow access control functions to be separated from other functions."¹³ In its petition for reconsideration, NCTA asks the Commission to "clarify" that this provision does not preclude cable system operators from bundling non-security features and functions with the Decoder Modules that they are obligated to provide to their customers.¹⁴ EIA/CEG, in contrast, requests that the Commission require cable operators to offer Decoders "which perform only signal security functions."¹⁵

Allowing a cable system to bundle non-security features with the Decoder Module raises serious competitive concerns. Many cable subscribers will be obligated to obtain the Decoder Module in order to receive non-basic-tier programming. Allowing cable systems to bundle non-security features into the Decoder Module may foreclose competition from consumer electronics manufacturers that want to provide this functionality.

The simplest solution would be require physical separation of the Decoder Module from other equipment providing non-security functions.

¹³ Cable Compatibility Order, 9 FCC Rcd at 1989.

¹⁴ See NCTA Petition for Partial Reconsideration and Request for Clarification at 9.

¹⁵ EIA/CEG Petition for Reconsideration and Clarification at 9-10 (emphasis in original).

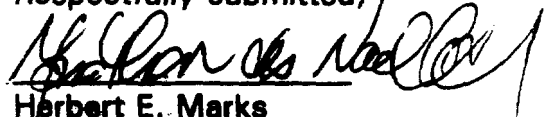
Under such an approach, a cable system would be required to provide -- as part of its transmission network -- a Decoder Module that performs only security-related functions. The cable system could provide other features and functions through a separate piece of in-home equipment, which would be subject to competition from non-cable-system-provided consumer electronics equipment. This approach would create a strict line of demarcation between the non-competitive cable network and the competitive consumer electronics market, and would ensure consumers the full benefits of competitive provision of consumer electronics equipment used in conjunction with cable service.

An alternative solution would be to allow cable systems to bundle security-related and non-security-related functions into a single "box," provided the cable system also makes available an unbundled "security only" Decoder Module. Such an approach would allow for the competitive provision of non-security-related equipment, although it would blur the line between the cable network and the consumer electronics market. If the Commission were to adopt this approach, it would be especially important to ensure that the Decoder Interface and Module are designed in a way that does not allow a cable system to discriminate against customers that purchase cable-related consumer electronics equipment from non-cable-system-affiliated producers.

CONCLUSION

This proceeding provides an important opportunity for the Commission to shape the future relationship of the cable and consumer electronics industries. As it considers the various petitions for reconsideration that are now before it, Compaq urges the Commission to preserve the commitment -- clearly articulated in the Order -- to open up the market for cable-related consumer electronics equipment to full and fair competition. In particular, the Commission should carefully limit any authority to bundle cable transmission service (including the Decoder Module) with competitively provided in-home equipment, and should clearly establish the line of demarcation between the cable and consumer electronics markets.

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